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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,307	03/16/2001	Robert K. Smith	T8-464854US	5399

7590 06/21/2002

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EXAMINER

GOLDMAN, CHERYL L

ART UNIT	PAPER NUMBER
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3635

DATE MAILED: 06/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/809,307	SMITH, ROBERT K.	
	Examiner	Art Unit	
	Cheryl L Goldman	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 12 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2, 3, & 6</u> . | 6) <input checked="" type="checkbox"/> Other: <i>Pet to Make Special & Decision</i> . |

DETAILED ACTION

Drawings

1. The drawings are objected to because the reference numbers are smudged. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "B". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: spelling inconsistency: "levelling" on page 4, line 17 and "leveling" on page 4, line 20. While both forms are acceptable spelling variants, one should be used throughout.

Appropriate correction is required.

Claim Objections

4. Claim 10 is objected to because of the following informalities: lacks a period.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b) that for the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,860,510 to Kotler.

Kotler clearly shows a tile that includes all the limitations recited in claims 1, 3, 4, and 7.

With regard to claim 1: Kotler shows a tile (10) with an upper surface of flooring material (12), a rigid lower member (11), which has a plurality of support legs (19) that allow water to substantially flow under for purposes of draining, and is designed to interlock with other similar tiles in a connection means (22, 23) around the perimeter of the tile.

With regard to claim 3: Kotler discloses the above tile (10) as having a lower member that is a plastic sheet grid (11).

With regard to claim 4: Kotler states that said lower member of plastic sheet grid (11) that may be fabricated from any of many resilient plastics, including polyethylene. (See column 4, lines 65 – 68.)

With regard to claim 7: Kotler shows a tile (11) with an upper surface of flooring material (12), which may be adhesively attached to the rigid lower member. (See column 5, lines 20 – 23.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 5, 6, 8, 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotler in view of U.S. Patent No. 3,902,293 to Witt et al.

With regard to claim 2: Kotler shows a tile (10) with an upper surface of flooring material (12), a rigid lower member (11), which has a plurality of support legs (19) that allow water to substantially flow under for purposes of draining, and is designed to interlock with other similar tiles in a connection means (22, 23) around the perimeter of the tile. Kotler, however, does not show wafer board as one of the component layers.

Witt discloses a tile (10) with an upper layer of wafer board (13, 151, 152), which is designed with the same basic properties in mind, namely, to provide a multi-layered tile, with a rigid portion, i.e. the wafer board, (see column 2, lines 22 – 24) that is meant to allow for drainage and venting of moisture. While Witt's tile is not raised on projections, the lower layer provides a cushion that allows draining and venting of moisture to occur through tiles spaces (see column 3, lines 42 – 52), which is the primary function of the support legs disclosed by Kotler.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tile of Kotler to include a layer of wafer board for purposes of rigidity.

With regard to claim 5: Kotler discloses the aforementioned tile (10) as having a lower member (11) that is a plastic sheet grid, however, the wafer board is not part of his disclosure. Witt's inclusion of wafer board (13, 151, 152) in the design of his tile shows a plastic bottom layer (11) that permits venting of moisture from the sub-floor. Since both Kotler and Witt show the bottom layer as plastic, it would have been obvious to modify Kotler's tile to include wafer board, as discussed in relation to claim 2 above.

With regard to claim 6: As previously mentioned, Kotler states that said lower member of plastic sheet grid (11) may be fabricated from any of many resilient plastics, including polyethylene. Applicant's design shows this tile with a wafer board layer, which Witt discloses in his patent of a similar tile design. It would have been obvious to one of ordinary skill to include wafer board in Kotler's design as presented in Witt.

With regard to claim 8: Kotler shows a tile (10) with an upper surface of flooring material (12), which may be adhesively attached to the rigid lower member (11). Kotler does not, however, included wafer board in his tile. Witt discloses a tile (10) with an upper layer of wafer board (13, 151, 152) with a wear resistant layer, which may include fire retardant and plastic coatings, which then may be adhesively bonded a plastic bottom layer that permits venting of moisture from the sub-floor. (See column 2, lines 10 – 12, 22 – 24, 29 – 34, and column 5, lines 62 – 64.)

With regard to claim 9: Kotler shows a tile (10) with an upper surface of flooring material (12), a rigid lower member (11), which has a plurality of support legs (19) that allow water to substantially flow under for purposes of draining, and is designed to interlock with other similar tiles in a connection means (22, 23) around the perimeter of the tile. Kotler, however, does not show wafer board as one of the component layers nor a tongue and groove connection means. While said connection means (22, 23) themselves appear as a series of miniature tongue (22) and groove (23) parts, they are in fact not the classic tongue and groove. Witt's tile (10) includes the wafer board (13, 151, 152) as well as a tongue (153) and groove (154). See Figs. 9 and 10, column 7, lines 53 – 54, and column 10, lines 13 – 16 for the teaching "whereby grooves are formed along two corner-meeting edges and whereby overhanging tongues are formed along the other two corner-meeting edges." Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tile of Kotler to include a layer of wafer board for purposes of rigidity and design as well as to include classic tongue and groove design connection means in lieu of the individual

connection means to interlock tiles. Rather than produce a series of individual miniature tongues and grooves as Kotler has, a continuous tongue and groove as shown in Witt would be both simpler and more economical to manufacture.

With regard to claim 11: Kotler shows a tile (10) with an upper surface of flooring material (12), a rigid lower member (11), which has a plurality of support legs (19) that allow water to substantially flow under for purposes of draining, and is designed to interlock with other similar tiles in a connection means (22, 23) around the perimeter of the tile. Kotler does not show two adjacent tongue and groove connection means on the tiles. Witt presents an alternate embodiment of the floor tile with a tongue and groove on two adjacent sides, as shown in Figs. 9 and 10 and described in columns 7 and 8, specifically "the two tongues and their respective grooves," column 7, line 62. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tile of Kotler to include two adjacent tongue and groove design connection means in lieu of the individual connection means to interlock tiles for ease of connecting tiles.

With regard to claim 12: Kotler shows a tile (10) with an upper surface of flooring material (12), a rigid lower member of rigid plastic sheet grid (11) that may be fabricated from any of many resilient plastics, including polyethylene, which has a plurality of support legs (19) that allow water to substantially flow under for purposes of draining, and is designed to interlock with other similar tiles in a connection means (22, 23) around the perimeter of the tile. Kotler, however, does not show wafer board as one of the component layers nor a tongue and groove connection means. Witt's tile (10)

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includes the wafer board (13, 151, 152) as well as two adjacent edge tongues (153) and grooves (154) as an alternate embodiment. (See Figs. 9 and 10 and column 10, lines 13 – 16 for the teaching “whereby grooves are formed along two corner-meeting edges and whereby overhanging tongues are formed along the other two corner-meeting edges.”) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tile of Kotler to include a layer of wafer board for purposes of rigidity and design as well as to include two adjacent edge tongue and groove connection means to interlock tiles. Rather than produce a series of individual miniature tongues (22) and grooves (23) as Kotler has, two adjacent edge tongue and groove connection means, as shown in Witt, would be both simpler and more economical to manufacture, as Witt describes in columns 7 and 8, specifically “the two tongues and their respective grooves,” column 7, line 62.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotler in view of U.S. Patent No. 3,388,516 to Thielen.

Kotler shows a tile (10) with an upper surface of flooring material (12), a rigid lower member (11), which has a plurality of support legs (19) that allow water to substantially flow under for purposes of draining, and is designed to interlock with other similar tiles in a connection means (22, 23) around the perimeter of the tile. Kotler’s connection “means are provided around the perimeter of the support grid to allow attachment of additional grids in an interlocking manner.” (See U.S. Patent No.

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4,860,510 to Kotler: Abstract.) Said connection means themselves are a series of miniature tongue (22) and groove (23) design components.

Kotler does not offer an alternative design to include that of a spline and groove. Thielen shows a multi-layered tile designed to interlock with other similar tiles and is raised above the sub-floor, "which renders possible such a ventilation of the floor that there does not occur any consideration of water." (See Thielen, column 4, lines 48 – 50.) In Fig. 6, Thielen shows one embodiment with a triangular-shaped tongue and groove design, and another with a key (30) and groove (32) in Figs. 7, 8, and 10. It would have been obvious to anyone of ordinary skill in the art at the time the invention was made to modify the tile disclosed by Kotler to include a key and groove as described by Thielen. Such key is a connection means that, like the tongue and groove, offers a simple, economical alternative manufacturing solution over Kotler's individual connection means design.

Claim 10 is also rejected under 35 U.S.C. 103(a) as being unpatentable over Kotler in view of U.S. Patent No. 5,182,891 to Slocum.

Slocum discloses a tile (50) designed to be raised above the sub-floor in order to overcome moisture problems. The interlocking mechanism is a tongue and groove design employing a separate key portion (6) to be inserted between the communicating tiles. While in this patent the keys also serve as feet to raise the tiles above the sub-floor, it is an obvious teaching to Kotler's disclosure. With reference to the applicant's Figs. 7 and 8: While the applicant's drawing of the groove and key show the key inserted fully between two connecting tiles, thus providing the missing "tongues"

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otherwise shown elsewhere (See Figs. 2 – 6 of applicant's file), Slocum's key serves a similar function in its use of the key while at the same time raising it and eliminating the need for additional feet along the bottom surface of the tiles. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tile of Kotler to include a key and groove system in order to connect the tiles and at the same time eliminate the need for incorporating the manufacture of multiple support legs by having the keys raise the connected tiles.

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to floor tiles:

U.S. Patent No. 5,433,052 to Niese

U.S. Patent No. 5,303,526 to Niese

U.S. Patent No. 4,890,434 to Niese

U.S. Patent No. 5,666,772 to Betty

U.S. Patent No. 3,604,173 to Dahlberg

U.S. Patent No. 4,910,936 to Abendroth et al.

U.S. Patent No. 5,968,630 to Foster

U.S. Patent No. 5,976,689 to Witt et al.

U.S. Patent No. 3,388,516 to Thielen

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl L. Goldman whose telephone number is (703) 305-4239. The examiner can normally be reached on Mondays from 10am to 7pm, Tuesdays through Thursdays from 6am to 3pm, and alternate Fridays from 6am to 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman, can be reached at (703) 308-0839


Carl D. Friedman
Supervisory Patent Examiner
Group 3600